

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A Magnetic-magnetic enrichment method comprising:
  - (a) placing micro particles (22) that bind to a desired biological component, into a solution (23) in a reactor vessel (26, 61);
  - (b) allowing the micro particles (22) to bind to the biological component in the solution (23) in a closed reactor unit (60) under the controlled conditions, wherein the closed reactor unit (60) comprises a magnetic unit (10) comprising at least one magnet (13) and the reactor vessel (26, 61), and wherein conditions in the closed reactor unit (60) are controllable;
  - (c) using the magnetic unit (10) to collect, wherein the desired biological component bound to the microparticles (22) is collected from the solution (23) in the closed reactor unit (60); (23) and
  - (d) by means of a magnet (13), which component is thereafter enriched enriching the desired biological component by releasing the component into another solution, in a liquid, characterized in

\_\_\_\_\_ that by means of the micro particles (22) attached to the magnet (13) or attached by means of at least one magnet at least one biological component is collected in a closed reactor vessel (26,61);

\_\_\_\_\_ and that at least one biological component is enriched in such a manner that the desired component is released to the solution.
2. (Currently Amended) A method according to claim 1, whereby the micro particles (22) containing the desired biological component is collected by means of a magnet (13) from a solution (23) in a vessel (26,61), the collected micro particles (22) are

released to a solution, characterized in that the micro particles (22) with various binding properties are placed in a closed reactor unit (60,61), where the prevailing conditions are controllable, in the reactor unit (60,61) the possible operations of the enrichment method are carried out, the micro particles (22) are collected by means of a magnet unit (10) containing at least one magnet (13), wherein enriching the desired biological component comprises:

opening the closed reactor unit (60,61); is opened, and the collected micro particles (22) is removed

removing the collected micro particles (22) from the reactor unit vessel (26, 60,61) with the magnet unit (10); and

and transferred by means of releasing the collected micro particles (22) the magnet unit (10) into a solution of another vessel and released in the solution of the vessel.

3. (Currently Amended) A method for magnetic synthetizing-synthesis, and modification~~binding, isolation, purification, or enrichment of biological components~~method, whereby comprising:

components, compounds or polymers of biological or synthetic origin are synthetized, modified and/or enriched by means of micro particles (22), which are handled by means of a magnet (13) in a closed reactor vessel (26,61),

in the reactor vessel (26,61) enzymatic or chemical reactions are carried out by means of micro particles (22),

the micro particles (22) are transferred out of the closed reactor vessel (26,61) and released in another vessel, characterized in that

[[[-]]] (a) placing the micro particles (22) having a proper activity and/or binding properties are placed to a closed reactor unit (60) into a solution (23) or on the surfaces of the reactor vessel (26,61), wherein the solution comprises the biological component to be synthesized, bound, isolated, purified, or enriched;

[[[-]]] (b) mixing the microparticles (22) in the solution (23) in the reactor unit (60) is mixed, if needed, wherein the reactor unit (60) comprises a magnetic unit (10) comprising at least one magnet (13) and the reactor vessel (26, 61);

[[ -]] (c) carrying out the a desired reaction and/or binding reaction are carried out in the reactor unit-(60);

[[ -]] (d) using the magnet unit (10) to collect the micro particles (22) are collected from the solution (23); by means of a magnet unit (10), which includes at least one magnet (13);

[[ -]] (e) opening the reactor unit (60); is opened, and

[[ -]] (f) removing the micro particles (22) are removed from the reactor unit vessel (6026, 61) with the magnet unit (10); and

(g) transferred transferring the microparticles (22) by means of the magnet unit (10) into a liquid solution in another vessel.

4. (Currently Amended) A method according to claim 1 or claim 3, characterized in thatwherein the micro particles (22) with desired binding properties are placed into in the closed reactor unit (60) so that the micro particles form a thin layer over the magnet unit (10); and/or over the a protective membrane (21) of the magnet unit (10); and/or on the inner surface of the closed reactor unit (60) by means of thea magnet[[s]](13) placed outside the closed reactor unit (60).

5. (Currently Amended) A method according to claim 1 or claim 3, wherein characterized the in that through channels (62) of the reactor unit (60) comprises channels (62) for rotating[[ -]] liquid solution (23) to be handled is rotated out and in and/or in and out of the reactor unit (60); for adding sample into or removing sample from the reactor unit (60);[[ -]] more sample is brought and/or removed and/or are controlled for controlling the gases or liquid brought into added into the reactor unit (60), controlling pH value in the reactor unit (60) and controlling salt content in the reactor unit (60); and/or the for filtering the gases or liquid brought in added into the reactor unit (60).

6. (Currently Amended) A method according to claim 1 or claim 3, characterized in thatwherein several reactor units (60) are placed in to an environmental cabinet (70), wherein the environmental cabinet controls the temperatures of the reactor units (60).

rotation speeds of the magnets (13), ~~the protective shields (21) of the magnets or the reactor units,~~ gas exchange, sampling and additions of samples or solutions (23) into the reactor units (60)~~are controlled.~~

7. (Currently Amended) A method according to claim 1or claim 3,  
~~characterized in that~~wherein the magnet unit (10) of the closed reactor unit (60) is released from the reactor vessel (26, 61), ~~after which~~and the micro particles (22) and biological components bound to micro particles (22) are washed and enriched in separate vessels from the reactor vessel (26, 61), thus ~~in the released reactor vessel remain all other materials excluding the micro particles and biological components or synthetic compounds or polymers bound to micro particles.~~

8. (Currently Amended) A method according to claim 1or claim 3,  
~~characterized in that~~in~~wherein~~ the reactor unit (60) the solution (23) and the micro particles (22) in the closed reactor unit (60) are mixed by means of the movement of projections or depressions inside the outer surface of the reactor ~~unit~~vessel (26, 61).

9. (Currently Amended) A method according to claim 1or claim 3,  
~~characterized in that~~in order to bring about an~~wherein~~ efficient movement of the solution (23) inside the reactor unit (60) is provided the solution is directed by directing the solution (23) between the micro particles (22)~~and/or~~ is ; by directed directing the solution (23) as a flow passing the magnet unit (10)~~and/~~; or [-] is mixed by means of by moving the magnet unit (10) in relation to the walls of the reactor vessel (26, 61) to mix the solution (23); or by moving the walls of the reactor vessel (26, 61) in relation to the magnet unit (10) to mix the solution (23); vice versa and/or [-] is pumpedby pumping the solution (23) inside the reactor unit (60).

10. (Currently Amended) A method according to claim 1or claim 3,  
~~characterized in that~~wherein the solution (23) is directed to pass ~~the~~a narrowing (73) between the reactor vessel (26, 61) and the magnet unit (10), in the middle of the reactor unit (60), by

~~means of rotating the reactor unit (60) around its longitudinal axis or by rocking the reactor unit (60).~~

11. (Currently Amended) A method according to claim 1 or claim 3,  
~~characterized in thatwherein~~ the solution (23) is mixed by ~~means of movement of~~ a flexible element (75) in the magnet unit (10).

12. (Currently Amended) A method according to claim 1 or claim 3,  
~~characterized in thatwherein~~ the reactor vessel (26, 61) comprises a stretchy material, and ~~wherein~~ the solution (23) is mixed by ~~means of pushing downwards~~ the bottom of the tube ~~reactor unit (26, 61)~~ ~~downward~~ consisting of stretchy material, whereby pump effect is brought about in the liquid.

13. (Currently Amended) A method according to claim 1 or claim 3,  
~~characterized in that the on~~ ~~wherein~~ the surface of the micro particle (22) is bound any of the following are bound to the surface of the micro particle (22): protein, antibody, peptide, enzyme, Protein A, Protein G, avidin, streptavidin, biotin, Cibacron blue, proteamine, pepstatin, PEG, lysine, BSA, NTA, EDTA, IDA, polysaccharide, lectin, one-or two-stranded nucleotide sequence, DNA, RNA, mRNA, LNA, PNA, bacteria, virus, yeast or cell.

14. (Currently Amended) A method according to claim 1 or claim 3,  
~~characterized in thatwherein~~ the micro particles (22) are used to carry out chromatographic ~~purifying~~~~purification~~, as ion exchange, reverse phase, hydrofobic or affinity chromatographic ~~purifying~~.

15. (Currently Amended) A method according to claim 1 or claim 3,  
~~characterized in that by means of~~ ~~wherein~~ the micro particles (22) from different samples are used to isolated or enriched pathological bacteria, viruses, parasites, or protozoans, ~~Salmonella~~, ~~Listeria~~, ~~E. Coli 0157~~ and ~~Clostridium~~.

16. (Currently Amended) A method according to claim 1 or claim 3, characterized in that by means of wherein the micro particles (22) are used to purify DNA, RNA, mRNA, proteins, peptides, cells or cell organelles.

17–36. (Canceled)

37. (New) The method of claim 14, wherein chromatographic purification is selected from the group consisting of ion exchange chromatography, reverse phase chromatography, hydrophobic chromatography and affinity chromatography.

38. (New) The method of claim 15, wherein the pathological bacteria are selected from the group consisting of *Salmonella*, *Listeria*, *Escherichia coli* H7:O157 and *Clostridium*.